# BACKGROUND

# Pandemic Influenza

Different from season influenza, an influenza pandemic occurs when a new strain of influenza is introduced into society. Because people have no immunity to the new strain, it spreads quickly from person-to-person, causing widespread illness and death.

In the last 100 years, three pandemics have occurred.

## 1918—Spanish Flu

Experts estimate that 20 to 40 percent (20% - 40%) of the world population became ill with the Spanish Flu, and more than 50 million people died. Within a period of eight months during that pandemic, approximately 675,000 Americans died.

The illness struck people quickly. A person might feel fine in the morning, become ill by noon and die by evening of the same day. Those who didn't quickly die of the flu often died days later from complications, such as pneumonia. This strain of flu seemed to kill healthy young adults, as well as those at high-risk, which is unusual. The attack rate and mortality was highest among adults 20 to 50 years old.

### 1957—Asian Flu

Unlike the 1918 pandemic, this virus was quickly identified and a vaccine developed. Asian influenza virus was first identified in the Far East in February 1957. By August a limited supply of vaccine was available.

The pandemic came to the United State during the summer of 1957, with a series of small outbreaks, but when the children returned to school that fall, the virus spread quickly. In October of 1957 infection rates were highest among school-aged children, young adults and pregnant women. The majority of deaths, however, occurred among the elderly.

In February 1958 a second wave of Asian Flu hit the United States. By the time it was over, the pandemic had killed nearly 70,000 Americans.

## 1968—Hong Kong Flu

The Hong Kong virus was first identified in early 1968 in Hong Kong, but didn't hit the United States until September 1968. By December the illness was widespread in the U.S. Deaths peaked in December and January 1969, mostly in adults 65 and older. In all, more than 33,000 people lost their lives during this pandemic.

Although the virus re-emerged in 1970 and in 1972, this was still the mildest pandemic in the 20th century. Scientists believe there may be several reasons why fewer deaths occurred during this pandemic.

This virus was similar to the Asian Flu that circulated in 1957 and 1958, meaning people may have had some immunity to the new virus. Also, the pandemic peaked during the winter school holiday, meaning children were not infecting each other at school. Additionally, improved medical care and antibiotics were available for people who became ill with secondary bacterial infections.

These three pandemics were separated by approximately 10 to 30 years. Based on the "pattern" of this phenomenon, some people believe we are now overdue for another pandemic. Influenza viruses change constantly, keeping the threat of a new emerging strain likely. What is important to remember is that local, state and federal health officials are constantly monitoring for emerging infectious diseases. Daily surveillance is in place to quickly alert health officials to potential disease outbreaks, and emergency plans to respond to such situations are constantly being exercised, evaluated and revised.

